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Beverly Eaves Perdue  
Governor

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Dee Freeman  
Secretary, DENR

# DPR DEDICATES TWO LEED CENTERS

## ***MERCHANTS CENTER FOCUSES ON EDUCATION, SUSTAINABILITY***

The Merchants Millpond State Park visitor center's dedication to sustainability is evident in its design, accented by high windows and rainwater cisterns. Its dedication to education is evident by a high-tech classroom and eye-catching exhibits about swamp habitats.

And at its dedication in October, the facility was called a "living legacy to good leadership" of state and local officials by Frank Rountree, a park advisory committee member who addressed nearly 100 fans and friends of the park at the event.

Gates County and all of North Carolina will benefit from the investment, Rountree said, "And, it will provide opportunities to educate all of us in stewardship."

The new 9,500-square-foot visitor center sits on a low hill overlooking the millpond and is augmented by an outdoor classroom and a new facility for canoe rentals created by the park staff.

"More than 200,000 visitors make their way into this unique state park each year, and this facility will add to their experience," said

*CONTINUED ON PAGE 9*



*THE VISITOR CENTER DESIGN ALLOWS PLENTY OF DAY-LIGHT TO LOWER LIGHTING COSTS.*



*VIEW LEADING TO FORT MACON COASTAL EDUCATION AND VISITOR CENTER AND THE FORT ITSELF.*

## ***FORT MACON OFFERS NEW GATEWAY TO HISTORIC PARK***

Fort Macon State Park will now greet more than one million visitors each year with a new 22,547-square-foot coastal education and visitor center, the largest such facility of its type in the state parks system.

The center was dedicated Oct. 31 at a formal ceremony, and was called "a very special gift to the people of North Carolina" by Jonathan Howes, who stepped down earlier this year as chairman of the Parks and Recreation Trust Fund Authority.

"Use it wisely. Use it well. Learn from it, and we're going to pass it along to the next generation," Howes told about 150 people attending.

The project represents an investment of \$8.2 million from the trust fund, and includes exhibits yet to be installed in a 4,000-square-foot space, relocation of the fort's bookstore and a realignment of that section of the park that leads to the 183-year-old fort.

The design by Hobbs Architecture of

*CONTINUED ON PAGE 8*

**Department of Environment and Natural Resources**

# CUSTOMER SERVICE EMPHASIZED

Recent budget and staffing reductions have created significant challenges for those entrusted with operating North Carolina state parks, Lewis Ledford, state parks director, told park superintendents from across the state gathered for the 59<sup>th</sup> annual Superintendent's Conference in November.

Providing the expected level of park operation and service to the visiting public has not been easy during these try-

ing economic times," Ledford said. "However, I believe leadership, creativity and innovation at the park level continue to be the keys to our overall success."

"Our agency has a tradition of doing more with less and we are capable of maintaining and building upon the tremendous support we have in the conservation community, the General Assembly and the citizenry."

The conference, held at the Summit Environmental Education Center, focused on a variety of themes, including continued excellence in customer service to all visitors and our partners and the ongoing improvement efforts in all of the agency's program areas.

"The superintendent's conference provides a unique opportunity for park managers to come together to learn from each other, to brainstorm new ways of improving park management and to consult with headquarters staff on the needs of the field staff and ways to pursue overall agency improvements," said Mike Lambert, chief of operations.

"In spite of the budget restrictions and staffing limitations, we can always do things better, and the commitment to doing that has never been higher," he said. "We have a number of young, new and energetic superintendents, and we need to capitalize on the opportunities we have in front of us."

The park superintendents received and provided feedback on administrative functions, planning and resource protection, land acquisition, the new centralized reservations system, trail building, operations, legislative initiatives, park advisory committees, environmental education, facilities and maintenance and design and development.

Lane McNeill of the North Carolina Highway Patrol provided an update on the new and expanding Viper communications program, which is expected to greatly enhance coordination and cooperation between law enforcement agencies at all levels of government.

## From The Director's Desk

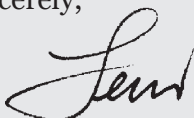
We had exceptional turnout at dedication events recently when Fort Macon and Merchants Millpond state parks opened new visitor centers. That's a reflection of many things, including the dedication and hard work of the park staffs and the high regard with which they're held in their communities.

Of course, both projects were well in the pipeline before the economy turned sour in late 2008. The coastal education and visitor center at Fort Macon is a one-of-a-kind effort, but the two projects together represent Parks and Recreation Trust Fund allocations of \$10.8 million. The 2008 economic study prepared for the state parks system by North Carolina State University revealed that monies invested by the state in just this fashion return impressive dividends at the local level. The study found that for each \$1 invested by the state, the impact on the local economy is \$13.80 in Carteret County (Fort Macon) and \$2.20 in Gates County (Merchants Millpond).

This type of investment appears to be much appreciated in those communities, right alongside the benefits to environmental education and enhancement to visitor service that the centers provide. Since 1994, we've opened 20 visitor centers in the state parks. The reception that we receive and the kind words at these events are gratifying.

Groundbreakings and dedication events are tried and true methods of spreading a message. But, the communications ground is shifting under our feet with the advent of what's popularly called Web 2.0 – the proliferation of social media such as Facebook, Twitter and Flickr as well as certain hosted services and web applications. (You'll read elsewhere in The Steward about the state parks Facebook page.) It's important to be cautious, but we must explore new methods of communicating with our friends and stakeholders. It's an exciting new direction that offers new types of opportunities.

Sincerely,



Lewis Ledford



# HAW RIVER MASTER PLAN FORMING

Less is more. That's the message friends and neighbors of Haw River State Park directed to the effort to create a master plan for the new park in northern Guilford and southern Rockingham counties.

After a public meeting and comment period, plans for initial development on about 850 acres separate from the park's environmental education center were scaled back somewhat by Swanson and Associates, the Carrboro landscape architecture firm developing the master plan.

A number of people at the meeting said they'd like to see a less developed park with more room to experience nature, at least until more land can be acquired.

"Overall, it's fairly close to what I expected, with the limited amount of land and the current budget situation," said David Craft, a member of the park advisory committee.

"I like what I see and I'm really excited. But, I realize that 20 years from now, we'll still be working on this."

At 1,334 acres, the park now has two principal components: the former Episcopal retreat that's now The Summit Environmental Education Center, and to the west along the river, undeveloped land acquired from Bluegreen Corp.

It's in that parcel of about 700 acres that planners envision a visitor center, group campsites, day use areas and a seven-mile network of hiking trails.

In a revised draft of the plan after the public meeting, planners cut the number of day use areas from three to two, trimmed the scope of



*MAPS OF THE DRAFT MASTER PLAN WERE ON DISPLAY AT THE PUBLIC MEETING.*

the group camp area and shortened the entrance road by 2,000 feet to put the visitor center nearer the planned public access on Church Street.

The overall effect will be to lessen the development footprint on the tract.

At The Summit, the plan envisions new youth cabins and outdoor instruction space, an elevated boardwalk and a dark sky observatory. An interim day use area to the east of The Summit is also being considered, on property that at one time, was to have been a subdivision.

Land acquisition efforts continue at the park, which was authorized in 2003. Park supporters are hopeful that new acquisitions will expand the land base to allow family campgrounds and other trail opportunities.

The projected corridor of the Mountains-to-Sea Trail is along the Haw River through the park, and the master plan will consider that possibility as well as the potential for eventual links with hiking and biking trails planned in Guilford County.

Among more than 130 people at the public meeting was a contingent of mountain and road cyclists. Each group asked for consideration to make the state park a destination for bikers from the Greensboro area.

Mountain biking trails would be dependent on additional land acquisitions. The planners could not configure a trail of the minimum 10-mile length onto the site.

A central component of any state park master plan is to identify property where development isn't feasible because the property has high natural resource value. Swanson and Associates completed 11 different natural resource analyses during that stage of the process.



*JOANNA LELEKACS OF SWANSON AND ASSOCIATES EXPLAINS THE MAPS OF THE DRAFT MASTER PLAN.*

# AUTHORITY OKAYS TRUST FUND PLANS

The North Carolina Parks and Recreation Trust Fund Authority has approved \$4.7 million to support capital projects, infrastructure repairs, major maintenance efforts and other improvements across the state parks system.

Meeting at Fort Macon State Park in October, authority members endorsed \$2.36 million to fund repairs to facilities, demolish failing structures, upgrade aging interpretation and education exhibits and repair dams.

The board also approved \$2.8 million for the design of a new visitor center and district office at Lake Norman State Park; dock improvements and water system upgrades at Jordan Lake State Recreation Area; day-use area enhancements at Pettigrew State Park; and, mountain road improvements at Pilot Mountain State Park.

The allocations will result in an economic influx and jobs in the communities surrounding the parks receiving capital funds, according to Bill Ross, former secretary of the Department of Environment and Natural Resources and newly appointed chairman of the authority.

The authority meeting coincided with the dedication ceremony for the new coastal education and visitor center at Fort Macon.

Ross conducted his first meeting and praised the trust fund authority members for their outstanding work in conserving the state's most outstanding natural resources and building outstanding education centers, such as the one at Fort Macon.

Ross also commended the outstanding work of Jonathan Howes, who served as authority chairman for the past 10 years.

Lewis Ledford, director of the Division of Parks and Recreation, gave board members an update on division activities, legislative directives on revenue generation, rules revisions, a parking fee study and law enforcement consolidation proposals.

Ledford also provided a status report on the division's strategic, master and general management planning efforts, which take on additional importance given the agency's recent unprecedented growth.

"Master plans, like those under way at Haw River, Carvers Creek and Chimney Rock state parks, guide parks for 20-30 years and guide us in land acquisition, development and accommodating visitor use trends. Our state parks



*TRUST FUND AUTHORITY MEMBERS AND FORMER DIVISION EMPLOYEES PRIOR TO THE FORT MACON COASTAL EDUCATION AND VISITOR CENTER DEDICATION.*

system has grown to more than 208,000 acres encompassing 73 units, including 16 locations added since 2000," he said.

"We're also on track this year to break our all-time visitation record. I don't know of a time when we have had more support and interest in our state parks."

Ledford said managing the new lands and waters, units and facilities is increasingly challenging due to the economic climate and state budget cuts, which included the elimination of 39 state park positions and multi-million dollar cuts in operations.

In other business, the authority approved \$600,000 in new funding to support costs associated with surveys, boundaries, closings for land donations and previously approved land acquisitions.

For the benefit of new members and to remind longer serving members of the division's internal processes for determining priorities and managing programs, staff members made presentations on land acquisition, grant management and project evaluation

Carol Tingley, division deputy director, reviewed the extensive planning process involved in the development of land acquisition and capital improvement project lists. She described the agency's systemwide plan, which provides an overview of the entire state parks system, master plans and general management plans. She also described how the division sets priorities for land

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# NEIGHBORS PITCH IN FOR COVE SWAMP

A prime-habitat, 441-acre swamp has been set aside for Lake Waccamaw State Park, thanks to a last-minute fund-raising effort in the community surrounding the Columbus County park.

The county, the Town of Lake Waccamaw and friends groups of the state park and the Cove Swamp contributed to the effort organized by The Nature Conservancy, which is holding the property purchased from an out-of-state developer who had planned to clear-cut the swamp.

"When you're in these uncertain times, having friends is important. When you're a state agency, having friends is especially important," Lewis Ledford, director of the state parks system, said during an October celebration of the acquisition.

A call for contributions came in March, when the developer put a surprising \$700,000 price tag on the property. The Parks and Recreation Trust Fund had set aside \$300,000 for the purchase and The Clean Water Management Trust Fund had pledged \$350,000.

The balance was raised through 160 separate donations from the community and with

## TRUST FUND

acquisition projects.

Bruce Garner, design and development section chief, explained the project evaluation program (PEP) for capital improvements. The computer-based program adapted from a National Park Service model creates a numerical ranking of construction projects.



*THE NATURE CONSERVANCY PRESENTED LAKE WACCAMAW STATE PARK WITH A FRAMED PHOTOGRAPH OF THE COVE SWAMP TO COMMEMORATE THE PENDING ADDITION OF THE PROPERTY TO THE STATE PARK.*

help from the conservancy.

Although Cove Swamp lies to the northwest of the 9,000-acre bay lake – on the opposite shore from the existing state park – its acquisition was viewed as critical for the long-term health of the lake.

"Cove Swamp is a critical component of the Lake Waccamaw watershed," said Dr. Diane Lauritsen, whose doctorate relied on research of the lake's water quality. "It provides important ecosystem services, by moderating flooding and retaining nutrients and sediments. Clear-cutting would

drastically alter the swamp, ultimately causing water quality problems in the lake."

The celebration at the state park drew a crowd of about 50, including state Rep. Dewey L. Hill of Whiteville and Sen. R.C. Soles Jr. of Tabor City.

"This is a good example of local people, local government and state agencies working together," Soles told the group.

The effort to protect Cove Swamp originated with Hervey McIver, a protection specialist for the conservancy, who has worked for years at the nearby Green Swamp Preserve.

Logging the swamp would have dramatically altered the habitat, with fast-growing red maple replacing the original gum-cypress forest, McIver said.

The Cove Swamp acreage will be officially added to the state park at a later date. The park was established in 1976 and now encompasses 1,759 acres.

*CONTINUED FROM PAGE 4*

Division managers use a set of objectives and other variables, including public safety, visitor demand and facility needs, to assign scores to each project.

Garner said the division uses the ranking as the primary tool to determine which projects to recommend for funding.

# NASPD HONORS MORTON FAMILY

The Morton family, which allowed the state to acquire much of the land at its Grandfather Mountain attraction for a new state park, was presented with the President's Award of the National Association of State Park Directors in September.

The national recognition for conservation was presented to Jim, Crae, Julie and Catherine Morton at the association's annual conference in Atlanta.

"Our family is truly honored to be recognized by those entrusted to care for the truly special outdoor places in the country," said Jim Morton. He called upon the 43 state park directors present to do more to conserve the country's natural heritage and treasures.

As owners of the signature mountain on the Blue Ridge and the landmark Grandfather Mountain attraction built by the late Hugh Morton, the family provided outstanding stewardship of some of North Carolina's and the nation's most unique and beautiful natural resources.

In 2008, the Morton family approached the state parks system about the long-term preservation and conservation of the property along with perpetual public access.

In September 2008, the state announced plans to acquire 2,456 acres of the mountain's "backcountry" for \$12 million, well below the appraised value of \$25 million. The acquisition also includes a conservation easement on 749 acres to be retained by the family and which includes the attraction's amenities including a nature center and wildlife habitats.

The 2009 General Assembly passed and Gov. Bev Perdue signed into law legislation authorizing the new Grandfather Mountain State Park.

"The Morton family has built upon the natural resource stewardship and the conservation ethic exemplified by Hugh Morton," Lewis Ledford, state parks director, said at the awards ceremony. "The family is an inspiration to citizens of every state and to those of us charged with the stewardship of places such as Grandfather Mountain."

This is the third time in four years that North Carolinians have captured the prestigious President's Award, an unprecedented record for the national state parks organization.

In 2006, the Foothills Conservancy and its director Susie Hamrick Jones were recognized for their help in securing 3,000 acres added to Lake James State Park. And in 2007, Lt. Gov. (then state senator) Walter Dalton and Mike Leonard and Dick Ludington of The Conservation Fund were honored for their help in securing Chimney Rock, the nucleus of the developing Chimney Rock State Park.

And in 2008, The Friends of Haw River State Park and other local citizens were nominated for their help in securing property that was slated to be developed as a gated community.

"The altruism, selflessness and sense of civic responsibility demonstrated by the Morton family are quite worthy of recognition," said Priscilla Geigis, Massachusetts state park director and NASPD president. "Their efforts, combined with those of other recent award recipients from North Carolina, have set the bar exceptionally high in the conservation and parks and recreation communities."

The NASPD is composed of 50 state park directors, plus those from territories of the United States, including its newest member, Puerto Rico.

## FACEBOOK PAGE TOUTS STATE PARKS

The state parks system has joined the rapidly growing world of social media with a presence on the popular Facebook Web site.

Listed as *North Carolina State Parks and Recreation*, the site allows the system to communicate informally with visitors, partners and stakeholders with messages about new programs and facilities. And, it helps build enthusiasm for the state parks mission.

The site had more than 800 fans within a month of its initial posting.

Facebook has drawn participation by Friends of State Parks, as well as some individual park friends groups, conservation organizations and other state agencies including the Museum of Natural Sciences and the Zoological Park.

Gov. Bev Perdue's office has encouraged state agencies to participate in social media as an avenue for openness and transparency in government.

The Department of Environment and

*CONTINUED ON PAGE 7*



# AMERICORPS PITCHES IN AT STATE PARKS

You might call it “extreme volunteering.”

Eight young AmeriCorps volunteers spent five weeks in North Carolina’s state parks in August and September sleeping in stale tents, cutting out tons of invasive plants, slapping mosquitoes and giving back to the community. The group spent a week each at William B. Umstead, Carolina Beach, Morrow Mountain and Pilot Mountain state parks and Jordan Lake State Recreation Area.

It’s worth it, said Joar-eyn Hill of Wisconsin, leader of team “Wolf 3,” as they dubbed themselves, but it isn’t easy.

“It definitely gets hard sometimes working and living with the same people for months on end and traveling everywhere in a 12-passenger government van,” Hill said. “But, I did things I never thought I’d be able to do.”

Several members of the team said the lure of travel tempered the hard times. The group is spending an entire year as volunteers. Before the state parks stint, they had spent weeks on the Gulf Coast providing Hurricane Katrina relief and rebuilt a women’s shelter in western North Carolina. In late

## FACEBOOK

*CONTINUED FROM PAGE 6*

Natural Resources has formed a task force to consider guidelines for the use of social media by all of its agencies, including state parks.

The group will examine such issues as content management, archiving, best practices and strategies for customer service.



AMERICORPS VOLUNTEER VERONICA LOPEZ WRESTLES WITH BRUSH.



September, they headed back to Mississippi.

Emily Parish Hill, a state parks biologist, arranged for the work and became a mother hen to the group as they migrated. Hill identified projects, rounded up tools and delivered the occasional baked treats since each volunteers was given a meager \$4 a day for meals.

Hill said the invasive plant removal, though tedious, was a vital chore. When exotic plants grow unchecked, they can out-compete fragile native species for habitat space and resources.

At Jordan Lake, Hill and the Wolf 3 team had some help from Dee Freeman, secretary of the Department of Environment and Natural Resources, who spent a few hours alongside them cutting down the autumn olive invading mature forest and wetlands at the Robeson Creek canoe access.

“I was extremely impressed by the hard work of everyone involved,” Freeman said, “And, I’m genuinely inspired by their devotion to public service.”

The volunteer effort is part of a national “United We Serve” initiative announced last summer by President Obama and supported by Gov. Bev Perdue, which aims to engage more Americans in serving their communities. AmeriCorps is a full-time, team-based residential program for men and women age 18-24.

The team members will each receive an education stipend at the end of their tour.

Most of them said they had not really had a chance to digest all of their experiences, more often just living day to day with infrequent breaks for quick trips back home.

“It’s valuable just experiencing social issues firsthand and how they affect people,” said Ned Scavuzzo of Rhode Island. “During my summer break, it was just sort of weird being back home after experiencing Mississippi.”

# FORT MACON

CONTINUED FROM PAGE 1

Pittsboro is stunning, with arched doorways, handmade brick and accents that reflect the pentagonal shapes and redoubts of the fort itself. The general contractor was Daniels & Daniels Construction Co. of Goldsboro.

Lewis Ledford, state parks director, said the center will present the natural history of the coastal barrier islands to complement the history story told in the fortress. It will also represent some of the values of the state's citizens to the millions of visitors who will walk through it each year.

"I hope they'll see that North Carolina values its cultural heritage, that it values its natural heritage and that North Carolinians are committed to conservation and environmental education," he said.

Grayden Paul, president of the Friends of Fort Macon, said that organization is proud to have played a part in the project. Both the friends group and retired Park Superintendent Jody Merritt lobbied for an education center for years.



THE STATE FLAG IS HOISTED AT THE NEW CENTER. THE NATIONAL FLAG FLIES OVER THE FORT.

## PEARSON NEW PRESIDENT OF 'FRIENDS'

David M. Pearson was appointed president of the Friends of State Parks, succeeding John Graham who passed away in 2008.

After a temporary term, he was elected to a full two-year term in October.

Pearson was a founder and is current president of Friends of the Hammocks and Bear Island, Inc., a nonprofit group supporting Hammocks Beach State Park. He has also served on the state park's citizen advisory board since 1992.

A graduate of Coastal Carolina Community College, Pearson is a realtor and has served



PARK SUPERINTENDENT RANDY NEWMAN ADDRESSES A CROWD OF ABOUT 150 AT CEREMONY.

"We had many, many hiccups along the way, but Jody never let us drop that dream," Paul said.

The friends group supplies many volunteers at the park, including those manning an information counter at the new center and others conducting tours of the fort. And, it supplied many of the extensive exhibits in the fort.

Although larger, Fort Macon's visitor center is similar in function to those at 19 state parks and state recreation areas built since 1994. Alongside the exhibit hall are a teaching auditorium, conference room, classrooms and administrative offices.

The facility was designed to meet sustainability standards of the U.S. Green Building Council through its Leadership in Energy and Environmental Design (LEED) program.

It offers features such as rainwater collection and low-flow water systems, low-energy lighting, recycled construction materials and preferred parking for alternative fuel vehicles.

as a Swansboro town commissioner and on the Onslow County Economic Development Commission and the Onslow County Tax Appraisal Review Board.

He is an active Rotarian, a member of National Association of Realtors and the North Carolina Association of Realtors and a director of the Swansboro Schools Century Club, a nonprofit organization dedicated to enhancing athletic programs.

He and his wife, Pamela, live in Swansboro. They have two children, Jessica, a student at East Carolina University, and Kristen, who will attend Wake Forest University this fall.



# MERCHANTS MILLPOND

CONTINUED FROM PAGE 1

Lewis Ledford, state parks director. "Beyond being a focal point for the park and a gathering place for visitors, the center will serve an important educational role."

The facility is the 19<sup>th</sup> visitor center built at state parks and state recreation areas since 1994, and represents an investment of \$2.8 million by the N.C. Parks and Recreation Trust Fund.

Museum quality exhibits explore the importance of the millpond in the community's history and the park's natural resources, including four distinct natural communities around the millpond and the adjoining Lassiter Swamp.

The visitor center is the first large state parks project geared to full certification by the U.S. Green Building Council, through its Leadership in Energy and Environmental Design (LEED) program.

Sustainable features include ground source heating and cooling, the use of maximum open space and day lighting, energy efficient lights, and waterless toilet systems. The building's cedar siding came from local sources.

The designer was Frank Harmon, Architect, of Raleigh and general contractor was SE-VAC Corp. of Portsmouth, Va. The exhibits were designed by Riggs Ward Design of Richmond, Va. and built by Color add of Manassas, Va.

Ledford noted that three of four visitor centers recently under construction are in rural areas, the others being at Cliffs of the Neuse and Raven Rock state parks.

"We often talk about how beautiful these places are and the need to protect them, but



CHILDREN CUT THE RIBBON ON THE NEW CENTER.

frankly, state parks are economic engines as well," he said.

Merchants Millpond was one of 14 parks included in a recent economic study by North Carolina State University. The study concluded that the local community got a \$2.20 return for each \$1 invested in state park operations and facilities, and that tourist expenditures related to the park amount to \$1.4 million annually.



EXHIBITS TEACH ABOUT NATURAL COMMUNITIES.

## RANGER MAKEOVER FOR FLAT STANLEY

Most folks with children in elementary school know Flat Stanley.

He's the hero of the popular children's book by Jeff Brown that encourages a project to send Flat Stanley to interesting places with instructions to dress him appropriately and teach him about these places.

Flat Stanley returns from his travels via mail or email with lessons learned to share with the young reader.

Savannah Neucomb of Oxford dispatched Flat Stanley to Falls Lake State Recreation Area recently, and Christina

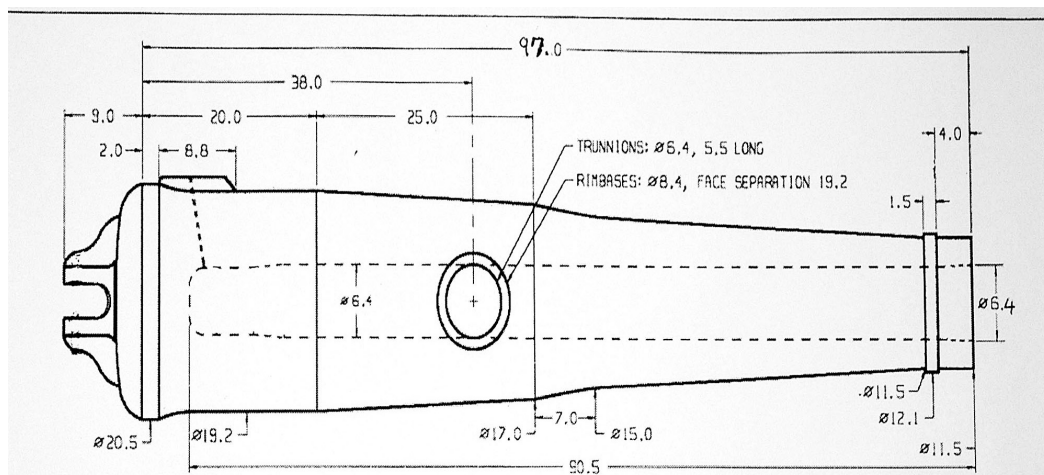


Cucurullo, the north district office assistant, messaged back info about his adventure.

"The park rangers at Falls Lake let Flat Stanley dress up like a ranger for the day and even let him have his own radio," Cucurullo reported. "If Flat Stanley comes back to visit, he should wear pants (to protect from ticks) if he plans to hike, or a bathing suit if he plans to go swimming."

Flat Stanley also returned with photos of himself on the lake's shore and looking at exhibits in the park office.

He seems to be enjoying himself.



## BOOM TIMES

PROJECT IS AIDED BY BOTH OLD  
AND NEW DRAWINGS OF THE CAN-  
NON AND THEIR CARRIAGES.



## STUDENTS BOLSTER CANNON DEFENSE

A faltering cannon defense at Fort Macon is soon to be relieved by a column of students and teachers from Wayne Community College in Goldsboro.

With sheets of aluminum, modern machine tools and industrial know-how, the college has volunteered to build new gun carriages for a pair of replica 32-pounder cannon at Fort Macon State Park. The project will replace wooden carriages that are rotting under the assault of coastal winds and salt spray.

Fabricating a Civil War-era product with

modern technology and business practices is a toolman's dream," said Kirk Keller, mechanical engineering instructor at the college.

"It's quite a project and we consider it quite an honor," Keller said. "It should give us some good notice for the program here. And, it's better than building widgets."

Keller said that 40-45 students in mechanical engineering, machining and welding technology programs at the college are involved in building the first carriage that could be completed by February.

Over the summer, Keller and other instructors studied 1840s-era drawings of the original carriages dispatched from the fort and fine-tuned engineering details so students entering the fall semester could get right to work.

Fiberglass replicas of both a smoothbore cannon and a rifled version have done a good job adding realism to the fort's exhibits, but the wooden carriages have repeatedly been replaced, said Paul Branch, a ranger who regularly gives interpretive programs on the fort's role in defending Confederate eastern North Carolina.

"These wooden carriages just don't last long as outdoor exhibits and it's just too expensive to totally rebuild or replace them every few



32-POUNDERS SERVED AS PRIMARY FORT DEFENSE.

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# RESEARCH HINTS FOREST IMPROVING

By Matt Mutel, Ranger  
Mount Mitchell State Park

I was privileged to share research that I organized and participated in at the High Elevation Forest Conference in West Virginia in May.

The research began last summer when I recruited East Tennessee State University undergraduate honors student Laura Lusk, her advisor Dr. Foster Levy and Levy's wife, Elaine Walker, as volunteers.

They joined me in over 200 hours of field work this past winter during which we surveyed nine one-acre plots in and around Mount Mitchell State Park. Cold temperatures, wind and snowfall required us to wear as many as four layers of pants, seven layers of jackets, hats and hoods and use chemical hand warmers.

At each plot, we surveyed 10 one-hectare subplots (located using a random number generator, a compass and a measuring tape) and collected the following data from every tree: species, health (dead or alive), height, diameter at breast height and degree of infestation of the Balsam Woolly Adelgid (BWA) of Fraser fir.

Similar data from these plots had been

collected approximately every 10 years since the 1960s by graduate students and professors.

Analyzing our data and that from the past 40 years yielded significant results. Since the 1960s, the forests have transitioned from fir seedlings and saplings (which grew up after the initial infestation of BWA beginning in 1957) into older fir and red spruce that now dominate the canopy.

The few hardwoods that live above 6,000 feet elevation (including mountain ash, fire cherry and yellow birch) have declined except in the forests dominated by the spruce and/or fir.

Simply put, the forests at Mount Mitchell seem to be healthier in 2008 than they have been in the past, which is great news considering the state parks is known for its expanses of dead conifers – killed by BWA and other environmental factors.

The results were shared with more than 150 high-elevation forest researchers in a presentation by Walker and published in the conference proceedings. We plan on submitting another paper to a journal for publication later this year.

I'm glad to work for the Division of Parks and Recreation where important, long-term research is valued, and I look forward to conducting similar research in the future.

## CANNONS

*CONTINUED FROM PAGE 6*

years," he said. "The National Park Service has gone to aluminum or steel for the gun carriages they have in some of their forts like ours, and they've proved to be quite successful."

Faced with paying up to \$90,000 for two new wooden carriages, Branch and Johnny Johnson, east district maintenance supervisor began looking for options. Gene Peacock, the district's interpretation and education specialist, hit upon the idea of putting them in touch with Keller at the community college.

After many hours of meetings and pre-planning, Keller, Johnson, Peacock and Branch had reached an agreement.

With the student volunteers, the fort will instead pay \$12,000 to \$16,000 for each carriage. But the benefits go beyond the savings, Branch said.

"It's a fantastic opportunity for the school and the people working on it, not only for the experience they'll gain, but also for helping out the state in a bad time and being a part of producing something that will be enjoyed by thousands of

visitors," he said.

Keller said that the school has drawn interest from Bentonville Battlefield and Fort Fisher, both Civil War historic sites.

Keller hopes to transport one of the cannon replicas to the college for close study because building a carriage is no simple job. By the mid-1800s, they'd become quite complicated.

The original, 5,200-pound cannon on Fort Macon's battlements used so-called "Barbette" carriages with two interlocking structures. A long, bottom chassis pivoted on the brick gun mounts of the fort, and a top carriage piece – shaped like an inverted "A" – supported the cannon barrel. As the cannon fired, the top carriage slid to the back of the chassis.

After firing, the cannon was reloaded and rolled back into firing position using the top carriage.

Replicating the device in aluminum means smoothing and hiding welds and fashioning fake bolt heads and the like, Branch said.

# NEALSON TO LEAD ENO RIVER

Keith Nealson, a veteran ranger at William B. Umstead State Park, has been promoted to superintendent at Eno River State Park in Durham and Orange counties. He succeeds David Cook who was named superintendent at Hanging Rock State Park in December 2008.

A superintendent is the chief of operations and administration at a state park or state recreation area with wide-ranging responsibilities for staffing, training, law enforcement, visitor services, natural resource protection and environmental education.

A native of Massachusetts, Nealson graduated from Northern Arizona University in 1994 with a bachelor's degree in history and chemistry. He worked with behaviorally and emotionally handicapped children at a middle school in Chapel Hill before joining the state parks



system in 1998 as a general utility worker. He was promoted to park ranger later that year.

He holds certifications in environmental education, advanced law enforcement and law enforcement instruction and first aid/CPR/AED, and is a facilitator for the Food, Land and People Project.

“Keith has excellent qualifications and experience at a state park that is very urban in nature, and he possesses excellent people skills,” said Lewis Ledford, director of the state parks system. “He will be able to contribute much to the development of Eno River State Park, with its strong tradition of conservation and stewardship.”

Nealson said, “I have been a frequent user of Eno River State Park for years and have always valued the scenic beauty, natural wonder and recreational opportunities that I have experienced here. I am very much looking forward to working with park staff, visitors and community partners to continue helping preserve this incredible natural resource.”

Eno River was established in 1972 and now encompasses 4,139 acres. It recorded 414,301 visitors in 2008.

# COX PROMOTED AT JOCKEY’S RIDGE

Debo Cox, a veteran ranger, has been promoted to superintendent of Jockey’s Ridge State Park in Dare County. Cox succeeds George Barnes, who retired earlier this year.

A superintendent is the chief of operations and administration at a state park or state recreation area with wide-ranging responsibilities for staffing, training, law enforcement, visitor services, natural resource protection and environmental education.

A native of Statesville, Cox graduated from UNC-Wilmington in 1984 with a master’s degree in outdoor education administration.

Having worked as a seasonal employee for the state parks system at Lake Norman and



Carolina Beach state parks, he joined the system fulltime in 2001 as a ranger at Goose Creek State Park. He joined the staff at Jockey’s Ridge in 2003.

Cox is a certified environmental educator and holds intermediate law enforcement certification.

“Debo’s service at a number of our state parks and his tenure at Jockey’s Ridge gives him a good depth of experience to lead this popular park,” said Lewis Ledford, director of the state parks system. “Jockey’s Ridge often has the highest visitation among our state parks and is facing new challenges all the time. That experience will be valuable to the park and to our leadership team.”

Cox said, “I feel incredibly privileged to add my name to the list of dedicated superintendents in the division. Jockey’s Ridge has meant so much to me, and to so many others, that I’m honored to be entrusted with its management.”

Jockey’s Ridge State Park was established in 1975 and now encompasses 426 acres. It recorded 1.4 million visits in 2008.



# SHIMEL SUPERINTENDENT AT NEW RIVER

Joe Shimel, a veteran ranger and park superintendent, has been named superintendent of New River State Park in Ashe and Alleghany counties with responsibilities for Mount Jefferson State Natural Area. Shimel succeeds Mike Lambert, who was promoted to chief of operations for the state parks system earlier this year.

A superintendent is the chief of operations and administration at a state park or state recreation area with wide-ranging responsibilities for staffing, training, law enforcement, visitor services, natural resource protection and environmental education.



A native of Wilson County, Shimel graduated from North Carolina State University in 2000 with a bachelor's degree in parks and recreation management. He worked as a seasonal em-

ployee and intern at Falls Lake State Recreation Area before joining the staff as a fulltime ranger in 2000.

He moved to Carolina Beach as a ranger in 2003 and became superintendent at Medoc Mountain State Park in 2007.

Shimel holds certifications in environmental education, advanced law enforcement, advance interpretive skills and prescribed burning.

"Joe has been aggressive at developing educational programming and in natural resource management at the state parks where he has served, and those are valuable skills in guiding a park such as New River where protection of the natural resource is so important," said Lewis Ledford, director of the state parks system. "We're pleased that he's taking on this challenge."

Shimel said, "I'm very excited about serving as superintendent of parks with such variety of recreational services for the public and amazing natural resources. I look forward to working with the staff and all the community supporters to help protect this wonderful resource."

New River State Park was established in 1976 and now encompasses 2,359 acres.

# NEWMAN AT HELM OF FORT MACON

Randy Newman, a veteran ranger at Fort Macon State Park in Carteret County has been promoted to superintendent of the park. He succeeds Jody Merritt, who retired in August after 35 years with the division, including 28 years as Fort Macon superintendent.

A superintendent is the chief of operations and administration at a state park or state recreation area with wide-ranging responsibilities for staffing, training, law enforcement, visitor services, natural resource protection and environmental education.



A native of Beaufort County, Newman graduated from East Carolina University in 1989 with a bachelor's degree in parks and recreation administration. He worked as a seasonal employee at Fort Macon and at Pea

Island National Wildlife Refuge before joining the division in 1988 as a ranger at Raven Rock State Park.

He moved to Fort Macon State Park in 1990.

Newman holds certifications in environmental education and advanced law enforcement and has been named North Carolina Science Educator of the Year.

"Fort Macon is one of our busiest parks with a long history, and Randy's contributions there have extended not only to visitor service and education, but also to the park's precious natural resources. His broad experience will be an excellent complement to Fort Macon's new coastal education and visitor center," said Lewis Ledford, state parks director.

Newman commented, "I'm honored to be chosen as the next superintendent at Fort Macon State Park, and look forward to the many challenges this position provides."

Established in 1924, Fort Macon State Park is North Carolina's second oldest and the first to conduct regular operations as a state park.

# VOLUNTEERS HELP WITH MEDOC TRAILS

An 11-mile network of bridle trails and related facilities, built by park staff and volunteers at Medoc Mountain State Park, was formally introduced to the public at a reception in October.

The trails had opened in July after more than two years of work by Medoc Mountain staff and the coordination of hundreds of man-hours of labor by more than three dozen volunteers.

"It's always good to have good friends in times like these," Don Reuter, assistant director for the state parks system, said at the reception. "Improvements to the state parks and new recreation opportunities such as this so often depend on close partnerships and the dedication of a park's friends and its staff."

The trails project was made possible with the 2007 acquisition of about 1,200 acres as part of a larger purchase of lands from International Paper coordinated by The Nature Conservancy.

Ranger Ed Wilkerson and then-superintendent Joe Shimel began assembling a "bridle volunteers" group that included a Cowboys for Christ chapter based Nash County.



WAGON RIDES WERE PART OF THE FESTIVITIES.

The park spent about \$41,000 from the N.C. Parks and Recreation Trust Fund for a trailhead area, picnic grounds and renovations to an existing shelter and a well suitable for watering horses.

The bridle trail network is entirely separate from the park's 10 miles of hiking trails with a trailhead that includes nearly two acres of parking for equestrian vehicles.

The Halifax County Tourism Authority co-hosted the reception.

## AUDUBON AID

THE T. GILBERT PEARSON AUDUBON SOCIETY MADE SEVERAL CONTRIBUTIONS TO HAW RIVER STATE PARK RECENTLY, INCLUDING 1,000 BIRD CHECKLISTS AND A BIRDING JOURNAL FOR THE SUMMIT LOBBY FOR VISITORS TO RECORD SIGHTINGS. THE GROUP ALSO INSTALLED SIGNS NOTING PARK HIKING TRAILS AS SITES ON THE N.C. BIRDING TRAIL. PARTIAL FUNDING WAS PROVIDED BY THE NATIONAL AUDUBON SOCIETY'S COLLABORATIVE FUNDING PROGRAM. LEFT TO RIGHT, SUE COLE, JEAN MURDICK, PARK SUPERINTENDENT SUE McBEAN, CRAIG LAWRENCE, JACK JEZOREK.



## 'PARK' IT

WITH A STATE PARKS  
SPECIALTY LICENSE TAG



*The Division of Motor Vehicles is accepting applications and payment for these special license plates. There is a \$30 fee in addition to regular license fees (\$60 for personalized plates). Additional fees support conservation through the Parks and Recreation and Natural Heritage trust funds.*

**Information at [www.ncparks.gov](http://www.ncparks.gov)  
or [www.ncdot.org/dmv](http://www.ncdot.org/dmv)**



# NORTH CAROLINA STATE PARKS

## MONTHLY ATTENDANCE REPORT

### NOVEMBER, 2009

NC STATE PARK	November 2009	TOTAL Nov-09	November 2008	TOTAL Nov-08	% CHANGE (2009/2008) Nov YTD	
Carolina Beach	31,712	477,356	28,432	442,670	12%	8%
Chimney Rock	14,600	199,285	15,617	199,735	-7%	-0%
Cliffs of the Neuse	9,031	175,223	7,285	122,318	24%	43%
Crowders Mountain	36,561	534,556	34,649	331,443	6%	61%
Dismal Swamp	5,511	51,578	4,050	31,572	36%	63%
Elk Knob	2,036	21,492	382	5,684	433%	278%
Eno River including Occoneechee Mountain	29,700	382,759	32,882	395,795	-10%	-3%
Falls Lake	20,655	934,203	17,714	775,541	17%	20%
Fort Fisher	20,509	737,984	21,856	653,570	-6%	13%
Fort Macon	54,824	1,356,518	55,726	1,134,118	-2%	20%
Goose Creek	16,450	196,736	12,443	167,579	32%	17%
Gorges	6,080	71,248	997	17,373	510%	310%
Hammocks Beach	3,165	115,443	5,979	119,493	-47%	-3%
Haw River	1,932	22,331	1,902	25,628	2%	-13%
Hanging Rock	22,926	403,137	30,331	434,871	-24%	-7%
Jones Lake	1,535	51,428	1,106	62,502	39%	-18%
Jordan Lake	26,978	1,161,958	37,872	772,329	-29%	50%
Jockey's Ridge	55,365	1,407,048	57,384	1,369,207	-4%	3%
Kerr Lake	42,480	1,129,656	45,836	1,115,532	-7%	1%
Lake James	23,014	374,229	21,374	362,837	8%	3%
Lake Norman	30,321	489,951	29,940	469,473	1%	4%
Lake Waccamaw	4,656	87,994	4,544	68,818	2%	28%
Lumber River	6,440	90,600	5,032	75,252	28%	20%
Merchants Millpond	14,696	194,550	16,232	213,345	-9%	-9%
Medoc Mountain	4,668	62,737	4,700	54,069	-1%	16%
Mount Mitchell	16,397	320,832	7,853	178,356	109%	80%
Morrow Mountain	30,794	395,070	30,246	367,860	2%	7%
New River including Mount Jefferson	13,772	264,398	12,822	259,244	7%	2%
Pettigrew	4,200	53,792	2,799	57,362	50%	-6%
Pilot Mountain	50,135	473,109	48,820	376,979	3%	26%
Raven Rock	14,213	169,701	12,782	115,241	11%	47%
Singletary Lake	1,681	24,494	1,008	29,178	67%	-16%
South Mountains	14,048	182,836	13,098	171,458	7%	7%
Stone Mountain	28,724	420,312	24,996	313,292	15%	34%
Weymouth Woods	3,995	44,714	4,022	46,592	-1%	-4%
William B. Umstead	88,687	729,825	77,485	665,765	14%	10%
<b>SYSTEMWIDE</b>	752,491	13,809,083	730,196	12,002,081	3%	15%



## ***Our Mission Remains...***

to protect North Carolina's **natural diversity**;

to provide and promote **outdoor recreation** opportunities throughout North Carolina;

to exemplify and encourage **good stewardship** of North Carolina's natural resources for all citizens and visitors.

*8,000 copies of this public document were printed  
at a cost of \$562.00 or \$0.07 per copy.*

## ***SAFETY ZONE***

### **GET YOUR HOME READY FOR WINTER**

✓Inspect your heating source. Remove all flammable material from around the heating source.

✓Get the fireplace ready. If your chimney hasn't been cleaned in a while, call a chimney sweep to remove soot and creosote.

✓Check your home's exterior, paying special attention to doors and windows. Add weatherstrip if necessary. Clean gutters and downspouts.

✓Prepare a 72-hour winter emergency kit for both your home and your car.

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